CLAIMS

What is claimed is:

1. A process for producing a conjugate comprising (a) forming a carrier on a solid phase by linking together monomeric units, and (b) introducing into the carrier at predetermined positions 1-10 additional monomeric units covalently bound to hapten molecules and 1-10 additional monomeric units covalently bound to marker groups or solid phase binding groups, whereby the conjugate comprises a maximum of 100 monomeric units selected from the group consisting of nucleotides, nucleotide analogues and amino acids.

2. A process for producing a conjugate comprising (a) forming a carrier on a solid phase by linking together monomeric units, (b) introducing into the carrier at predetermined positions additional monomeric units comprising reactive side groups and protecting groups for said side groups, (c) cleaving said protecting groups, and (d) coupling 1-10 hapten molecules and 1-10 marker groups or solid phase binding groups to said reactive side groups, whereby the conjugate comprises a maximum of 100 monomeric units selected from the group consisting of nucleotides, nucleotide analogues and amino acids.

3. The process as claimed in claim 1, wherein the monomeric units are amino acids.

4. The process as claimed in claim 2, wherein the monomeric units are amino acids and 2-10 hapten molecules are coupled in step (d).

5. The process as claimed in claim 1, wherein the monomeric units covalently bound to hapten molecules and the monomeric units covalently bound to marker groups or solid phase binding groups are bound via primary amino groups or thiol groups.

6. The process as claimed in claim 2, wherein the reactive side groups are primary amino groups the protective groups are selectively cleavable.

7. The process as claimed in claim 6, wherein the protective groups are selected from the group consisting of acid-labile groups and acid-stable groups.

8. A process for producing a conjugate comprising

(a) forming a carrier on a solid phase by linking together monomeric units,

(b) introducing into the carrier at predetermined positions 1-10 additional monomeric units covalently bound to hapten molecules and 1-10 additional monomeric units covalently bound to marker groups or solid phase binding groups, and

(c) introducing into the carrier at predetermined positions additional monomeric units comprising reactive side groups and protecting groups for said side groups, cleaving said protecting

groups, and coupling 1-10 hapten molecules and 1-10 marker groups or solid phase binding groups to said reactive side groups,

whereby the conjugate comprises a maximum of 100 monomeric units selected from the group consisting of nucleotides, nucleotide analogues and amino acids.